(No Model.)

L. CARR.

HOPPLE.

No. 589,071. Patented Aug. 31, 1897.

Fig. 4.

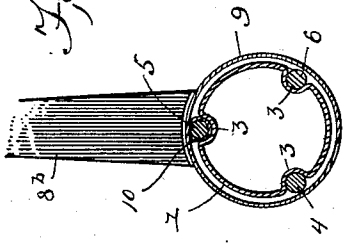


Fig. 3.

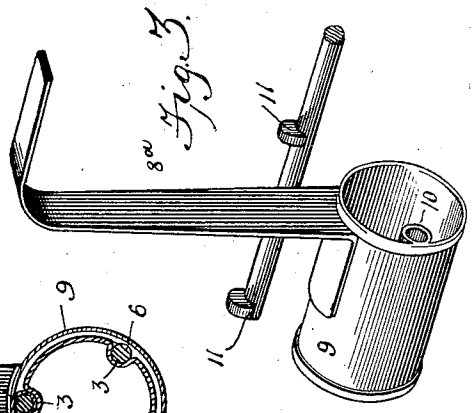


Fig. 1.

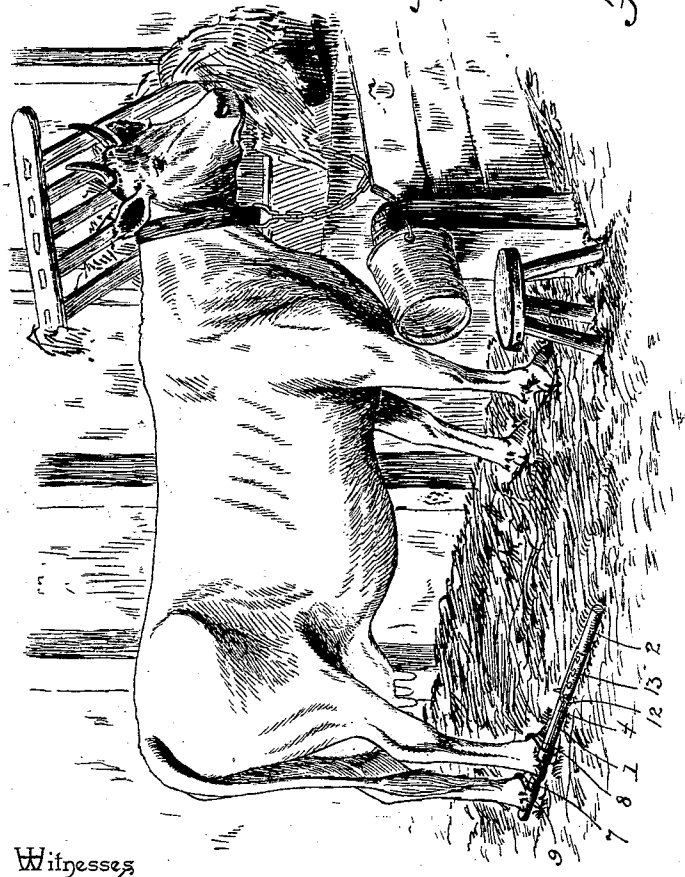


Fig. 5.

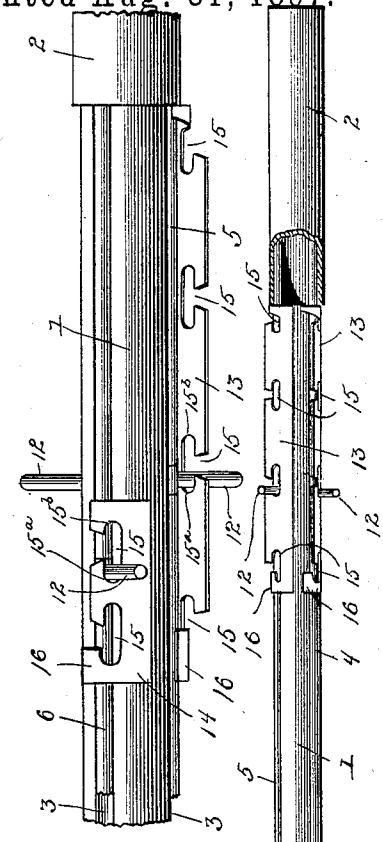
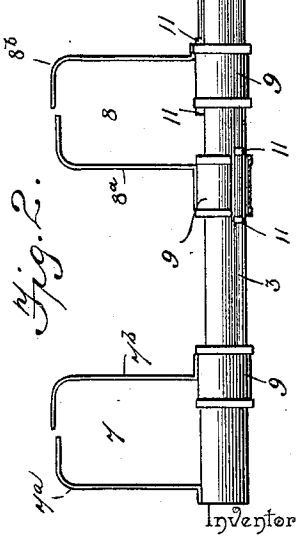


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

LEE CARR, OF MINCO, INDIAN TERRITORY.

HOPPLE.

SPECIFICATION forming part of Letters Patent No. 589,071, dated August 31, 1897.

Application filed September 22, 1896. Serial No. 606,644. (No model.)

To all whom it may concern:

Be it known that I, LEE CARR, a citizen of the United States, residing at Minco, Chickasaw Nation, Indian Territory, have invented a new and useful Hopple, of which the following is a specification.

My invention relates to hopples of that class employed for preventing cows from kicking during the operation of milking, and the object in view is to provide a device which may be applied and removed quickly, and which when in place, while preventing the cow from overturning the milk-pail or inconveniencing the operator, will not chafe the legs of the animal.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a view of a hopple constructed in accordance with my invention, the same being shown applied. Fig. 2 is a detail side view, partly in section, of the same. Fig. 3 is a detail view in perspective of one of the claws and the contiguous portion of the operating-rod attached thereto. Fig. 4 is a detail transverse section of the staff and operating-rods. Fig. 5 is a partial side view of the device reversed to illustrate the short rack for locking the movable claw of the terminal clamp.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a staff terminating at one end in a handhold 2 and provided with a plurality of longitudinal guide-grooves 3, in which fit operating-rods 4, 5, and 6. The staff carries a plurality of leg-clamps 7 and 8, designed to engage, respectively, the hind legs of a cow, and each clamp consists of twin oppositely-disposed claws designed to coöperate to secure the legs. The outer or terminal claw 7^a is preferably fixed to the staff, while the twin claw 7^b, in common with the claws 8^a and 8^b, comprising the clamp 8, is mounted to move longitudinally upon the staff to provide for adjustment. Each of these movable claws is provided with a sleeve 9, which fits upon the staff and has an inwardly-extending key 10 to operate in one of the guide-grooves, whereby rotation of the sleeve upon the staff is prevented. These keys preferably consist of tubes in which fit the contiguous extremities of the operating-rods, and the rods are provided, respectively, at opposite extremities of the sleeves with projections 11, which allow a limited rocking movement of the rods and at the same time enable longitudinal motion to be communicated from the rods to the sleeves.

It will be understood that the clamp 8 comprises claws, of which both are adjustable in order that the interval between the clamps may be adjusted to suit the interval between the legs of a cow, whereby the hopple may be applied without requiring the animal to change its position. It is desirable in the use of a device of this class to apply the same with as little annoyance as possible in order to avoid fretting the animal, and I accomplish this by employing a stationary and a movable clamp, each of which is provided with one or more movable members or claws, which are adapted to be adjusted to facilitate application and removal and prevent accidental displacement when adjusted to engage the legs of the animal. The extremities of the claws are preferably turned toward each other with the inner claws, or those bent outwardly or from the handhold, of greater length than the others.

The means which I employ for securing the claws at the desired adjustment include finger-holds or studs 12, carried by the operating-rods in operative relation with racks 13 and 14, fixed to the staff contiguous to the handhold. The racks 13, which are arranged contiguous to the operating-rods 4 and 5, are of corresponding lengths, while the rack 14, which is arranged contiguous to the rod 6, is shorter, as shown in Fig. 5, for the reason that the only necessary adjustment of the movable claw of the clamp 7 is to open and close the clamp, while the clamp 8 is adapted for adjustment longitudinally of the staff to vary the distance between the clamps. Each rack is provided with a plurality of notches 15 for the reception of the finger-holds or studs on the operating-rods, engagement and disengagement of these finger-holds or studs being accomplished by turning the operating-rods in the grooves which form seats there-

for. The notches are preferably constructed to form inner and outer terminal seats 15^a and 15^b, while the flared mouth of each notch is arranged at an intermediate point. This construction provides for engagement with facility, while accidental disengagement is prevented. The finger-hold or stud may be seated in either end of the notch, according to the direction in which strain is applied to the claw attached to the particular operating-rod.

From the above description it will be seen that the device embodying my invention is adapted to be applied without loss of time to the legs of the cow, and that when adjusted independent forward movement of either leg will be prevented without chafing or otherwise injuring the animal, and that the detachment of the device may be accomplished with equal facility. Stop-ears 16 are arranged at the upper extremities of the racks to prevent the finger-holds or studs from being moved beyond those points and thereby withdrawing the inner ends of the operating-rods from the interior of the handhold in which they are fitted.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. A hopple having a plurality of connected clamps arranged in a common plane and adapted to receive, respectively, the hind legs of a cow, said clamps being relatively adjustable to vary the interval therebetween, and each clamp comprising coöperating members of which one is adjustable independently of the other to facilitate the engagement of the cow's legs, and means for securing the members of the clamps in their normal relative positions, substantially as specified.

2. A hopple for the purpose named, having a staff, clamps carried by the staff and each having a movable claw mounted to slide upon the staff, operating-rods connected respectively to the movable claws, and means for securing said rods against longitudinal movement, substantially as specified.

3. A hopple for the purpose named, having a staff, a stationary clamp, an adjustable clamp mounted for movement toward and from the stationary clamp and parallel with the staff, each clamp having one of its members movable independently of the other member in a direction parallel with the staff, and means for securing the movable members of the clamps at the desired adjustment, substantially as specified.

4. A hopple for the purpose named, having a staff provided with guide-grooves, clamps carried by the staff and having movable members mounted to slide upon the staff, operating-rods fitted in said guide-grooves and connected, respectively, to the movable members of the clamps, said rods being capable of longitudinal and rocking movement, and racks arranged contiguous, respectively, to the operating-rods for engagement by finger-holds carried thereby, substantially as specified.

5. A hopple for the purpose named, having a staff provided with guide-grooves, clamps carried by the staff and comprising fixed and movable claws, the movable claws being provided with sleeves mounted to slide upon the staff and held from rotary movement, operating-rods mounted for longitudinal movement upon the staff and respectively connected for rocking movement to the sleeves of the movable claws, racks arranged contiguous to the operating-rods and having notches provided with inner and outer seats, and finger-holds carried by the operating-rods for engagement with the notches and adapted to be seated in the inner or outer ends thereof, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LEE CARR.

Witnesses:
W. H. TUTTLE,
C. B. CAMPBELL.